

in my journal under that date: "Most of the adult Starlings have yellow bills but one seemingly in badly worn plumage walking with a yellow billed bird had a dark bill." A Starling, trapped August 21, 1940, had an "all dark bill and heavily spotted body, but dark head and neck with narrow iridescent feathers."

In a recent Russian Natural History (Animal Life of the U.S.S.R.: Formozov and Jitkov, ed., Moscow-Leningrad, 1940, pp. 48-49, in Russian), there is a statement that the male Starling differs from the female in spring in having a yellow bill whereas that of the female is dark at the tip. There is very likely some sex variation, and it is not improbable that the bill cycle in Russia does not correspond exactly with that on Long Island, but the evidence is reasonably conclusive that both sexes of our Starlings acquire a full yellow nuptial bill.

My earlier conclusion from other data that many of our Starlings have already established their nesting grounds as an initial step in the breeding cycle in early winter (1937, *Bird-Banding*, VIII (2), pp. 76-77) correlates with change toward the nuptial bill color getting under way in December and January. The more abrupt loss of this color in the end of June and July confirms our Starlings being essentially single brooded.

The first young of the year are usually on the wing the very end of May, and I have record of a second brood raised in a nest hole, with eggs June 13, 1933, but as likely as not by another pair of birds. Only one parent of each brood was captured,—these were different individuals.

It may be noted that some at least, perhaps the majority of birds with changing bills in June and early July, were feeding young, favoring an hypothesis that changing bills synchronize with the beginnings of the breeding cycle in winter and its close in summer. On the other hand with young already out of the nest, I have so far no record of a Starling with other than a full yellow bill in the first ten days of June.

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EVENING GROSBEAKS AT HARTFORD, CONNECTICUT

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THE first Evening Grosbeaks (*Hesperiphona v. vespertina* (Cooper)) ever to visit my banding station at Hartford, Connecticut, were two adult females which appeared together on February 6, 1942. Two days later a false-bottom trap captured both of them and a band was affixed to each.

Not until January 14, 1944, was another bird of this species seen here.

On this date a banded female was discovered eating sunflower seeds in a swinging feeder. She returned alone on the 15th and 16th, but on the 17th and 18th she was accompanied by another female. Her companion was unbanded. The following day she brought two females and two males, all unbanded. On January 20 the flock swelled to twelve, and, until February 13, every day except January 31 and February 4 saw from eight to twelve Evening Grosbeaks feeding about the station.

Then the visits became erratic and unpredictable. A group of five appeared on February 21 after a barren week during which not a Grosbeak had been seen or heard. Ten came on February 26. Not another one was seen until a dozen spent March 8, 9 and 10 with us. Eight came on St. Patrick's day, only to disappear until the 20th, but the flock which appeared on March 20 was the largest one thus far, numbering eighteen individuals. Members of this flock appeared daily until the 30th. Not a Grosbeak was seen during the first twelve days of April. On April 13 a single, unbanded female came. Two days later a flock of seventeen arrived and remained through the following day. No more were seen until the 28th, when a flock of twenty paid us the final visit of the season.

My records indicate that five different flocks visited the station. These flocks arrived on January 20, March 8 and 20, April 15 and 28. The absence of banded birds in these newly arrived flocks was consistent. An exception to this rule occurred on April 16 when several bands were noted among that morning's arrivals. I succeeded in trapping three of these banded birds and found them to be members of the January 20 flock.

During the period of these visits I was successful in banding forty-nine of the Grosbeaks (forty-five females and four males). Thirteen individuals repeated and one recovery was made of a female recently banded at a station about six miles west of my own. One return was also trapped. She proved to be one of those which was originally banded here on February 8, 1942.

The most conspicuous observation of the entire winter was the preponderance of females. One, two, rarely three males were seen in a flock. Almost as often not even one male was present. The very last visit, on April 28, brought the largest group of males, four in the flock of twenty birds.

The temperaments of these Grosbeaks showed a very wide individual range. The males were uniformly gentle and they submitted to handling with but a minimum of apparent annoyance. Not one of them even threatened to bite during the banding procedure.

With regard to their size, the females can be divided into two distinctly different groups and the same division serves to separate them into two groups within each of which the temperamental characteristics of the individual birds were similar. The larger females, which appeared

also to be older, showed a range of temperament from sedate gentleness like that of the males to a restricted demonstration of their very excellent natural adaptation for biting, said demonstration being accompanied by infrequent vocal utterances which sounded more like warnings than threats. It was exceptional to find one of these birds either noisy or vicious.

On the other hand, the smaller females were, as a whole, just plain ornery. I was obliged to protect my hands with leather-faced gloves while handling most of this group. It was necessary, too, to carry most of them into the house for banding because their shrill cries caused such great excitement among the untrapped birds and made panicky any others who chanced to be in traps at the time. Even in this group one individual (42-220794) was outstanding. Trapped on four different occasions this undersized bird was consistently the screechingest, bitingest Grosbeak it has ever been my painful pleasure to handle. From the instant the trap door closed behind her until she was released from my smarting hand she never once paused in her shrieking. The morning I made her acquaintance she met my hand in the gathering cage with a belligerency that was bloodthirsty to say the least. Not content to wait until I attempted to take hold of her she flew to the top of the gathering cage and attacked my hand viciously. Upon the occasion of every succeeding recapture of this bird the same behavior pattern was repeated. She was ornery to the core.

The association of these Evening Grosbeaks with most of the other species which visited my station simultaneously with them seemed to be congenial. Juncos, Purple Finches, and a single Goldfinch shared in harmony with them the food placed in the traps and feeding trays. Blue Jays were somewhat less welcome in their company, but no conspicuous disagreements were noticed. With the only Robin to arrive while they were here, however, it was another story. This male Robin drove every Grosbeak which was seen to approach him though he was not seen to follow them in their hasty retreats.

It should be stated that this Grosbeak visitation occurred during a mild, almost snowless winter. The birds consistently appeared just before sunup, always heralding their approach by shrill cries which could be heard several minutes before the birds could be seen. They seldom remained after noon. I have no record of even one Grosbeak seen later than two o'clock in the afternoon.

Sunflower seeds were entirely acceptable to these birds. They fed as readily from the ground as from the fixed and swinging feeders, although the males showed a distinct preference for a small swinging feeder which was capable of accommodating not more than two birds simultaneously. The only other food they were seen to consume was taken by them from the long, dry seed-pods hanging from the branches of a nearby catalpa (*Catalpa catalpa* (Karst)) tree.

The majority of my captures were made in a flat trap located about twenty feet from the living-room window and operated by a string from that observation post. A false-bottom trap set on a window feeding tray was also quite successful. The only other trap used was a Chardonneret type which took eleven of the birds.

During the handling of these Grosbeaks not even a single parasite was discovered. Without exception every individual was in fine, plump condition with sleek plumage. Only one deformity was found. The left tarsus and foot of 42-229913, a small female, were conspicuously smaller than the right members. The bird seemed to suffer no handicap either in perching or in getting about on the ground. One injury occurred when a female caught one toe in the mesh of the gathering cage and tore the skin of her left foot. Some bleeding resulted. When this bird repeated fifteen days later the injury was completely healed. A fatality occurred when an unbanded female flew against the porch screen. Nobody witnessed the accident, so its contributing causes remain a mystery. An examination of the body revealed no broken bones, but it did disclose a haemorrhagic area extending over almost the entire skull.

The nature of the weather during the winter offered very little opportunity to study its effect on the birds' behavior. The first precipitation which could respectfully be called a snowstorm came on February 11. The same eight Grosbeaks which had been regular recent visitants were on hand, but no change in their behavior was evident. This group did disappear two days later, however, in clear weather. The only other snowstorm of the winter, on March 20, brought an augmented flock of eighteen birds to the station. On this occasion they showed a greater than ordinary desire to obtain food. This desire was characterized by noisy chattering and by crowding into already overpopulated feeding trays. There were conspicuously fewer disagreements among the members of the flock, too. A crisp, cloudless day (April 28) which preceded a clear, frosty night marked the arrival of the largest flock of all. As a whole, the weather, as far as the past winter was concerned, showed no consistent effect on the behavior of Evening Grosbeaks at Hartford, Connecticut.

Summarizing: In spite of the absence of local conditions which would explain their reason for seeking food at an urban feeding station, the winter of 1943-44 saw the greatest number of Evening Grosbeaks ever to visit my Hartford, Connecticut, banding station. Five individually different flocks visited the station. The birds customarily arrived just before sunup and seldom remained later than noon. There was a consistent preponderance of females throughout the winter. The individual temperaments of the females varied widely; perhaps too few males were handled to proclaim this sex as uniformly gentle as our four individuals would indicate. Excellent physical condition and freedom

from parasites characterized every member of both sexes. No consistent changes in behavior pattern were evident as resulting from changes in weather conditions.

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GENERAL NOTES

Arrival and Departure of Greater Snow Geese in Quebec.—During the past thirty years I have done considerable shooting on the Island of La Batture aux Loup Marins, located in the Gulf of St. Lawrence, ten miles from each shore and about fifty miles east of the city of Quebec. It is the first stopping place of the Greater Snow Geese on their southward migration. The first flights stop at La Batture before going to their much larger feeding grounds at Cap Tourmente, some twenty miles farther up the St. Lawrence. If undisturbed, they remain until they have eaten most of the three-cornered grass, their favorite food, and then depart for Cap Tourmente, where they remain until about November 20th, when they leave for their wintering grounds.

The following is the list of the autumn and spring arrivals and departures covering in large part the period from 1914 to 1944.

AUTUMN ARRIVALS & DEPARTURES

Year	First Arrival	No.	Later Total Arrived
1915	Sept. 8	4	
1917	Sept. 10	25	
1918	Sept. 5		Sept. 7—3000
1919	Sept. 4	4	Sept. 6— 12 Sept. 16—2500
1921	Sept. 5	75	Sept. 20—1500
1922			Sept. 19—2500
1923			Sept. 12— 350 Sept. 20—3200
1925			Sept. 11— 600
1926	Sept. 7	6	
1927	Sept. 7	2	Sept. 8— 150 Sept. 21—2000
1928	Sept. 2	6	Sept. 5— 16 Sept. 21— 900
1929	Sept. 11	8	Sept. 16— 800 Sept. 20—1200
1930	Sept. 10	150	Sept. 11— 600 Sept. 18—1000
1931	Sept. 12	100	Sept. 16—1200
1933	Sept. 13	12	Sept. 15— 92 Sept. 21—1200
1934	Sept. 10		Sept. 11— 150
1935	Sept. 13	90	Sept. 17— 500
1936	Sept. 8	52	Sept. 16— 700
1937	Sept. 5	18	Sept. 10— 60 Sept. 23— 600
1940	Sept. 13	32	Sept. 15— 425 Sept. 19—1500 (13 young)
1941	Sept. 7	6	Sept. 8— 14 Sept. 12—1000
1942	Sept. 11	12	Sept. 20—1825
1943	Sept. 1	2	Sept. 11— 60 Sept. 12— 540
			Sept. 17—1050 Sept. 19—1800
1944	Sept. 9	10	Sept. 28—3000 Sept. 24— 800